CLAIMS

What is claimed is:

1. A compound of Formula I, including pharmaceutically acceptable salts thereof,

T

wherein:

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Q is selected from the group consisting of:

R¹, R², R³, and R⁴, are independently selected from the group consisting of hydrogen, halogen, cyano, nitro, COOR⁵⁶, XR⁵⁷, C(O)R⁷, C(O)NR⁵⁵R⁵⁶, B, D, and E with the proviso that at least one of R¹-R⁴ is selected from B or E;

wherein - - represents a carbon-carbon bond or does not exist;

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m is 1 or 2;

 R^5 is hydrogen or $(CH_2)_nCH_3$, $-C(O)(CH_2)_nCH_3$, $-C(O)O(CH_2)_nCH_3$, -C(O)O

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R⁶ is O or does not exist;

A is selected from the group consisting of C_{1-6} alkoxy, aryl and heteroaryl; in which said aryl is phenyl or napthyl; said heteroaryl is selected from the group consisting of pyridinyl, pyrimidinyl, pyrazinyl, triazinyl, furanyl, thienyl, pyrrolyl, imidazolyl, thiazolyl, isothiazolyl, oxazolyl, isoxazolyl, quinolinyl, isoquinolinyl, benzofuranyl, benzothienyl, benzoimidazolyl and benzothiazolyl; and said aryl or heteroaryl is optionally substituted with one or two of the same or different members selected from the group consisting of amino, nitro, cyano, hydroxy, C_{1-6} alkoxy, $-C(O)NH_2$, C_{1-6} alkyl, $-NHC(O)CH_3$, halogen and trifluoromethyl;

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B is selected from the group consisting of $-C(=NR^{46})(R^{47})$, $C(O)NR^{40}R^{41}$, aryl, heteroaryl, heteroalicyclic, $S(O)_2R^8$, $C(O)R^7$, XR^{8a} , (C_{1-6}) alkyl $NR^{40}R^{41}$, (C_{1-6}) alkyl $COOR^{8b}$; wherein said aryl, heteroaryl, and heteroalicyclic are optionally substituted with one to three same or different halogens or from one to three same or different substituents selected from the group F; wherein aryl is napthyl or substituted phenyl; wherein heteroaryl is a mono or bicyclic system which contains from 3 to 7 ring atoms for a mono cyclic system and up to 12 atoms in a fused bicyclic system, including from 1 to 4 heteroatoms; wherein heteroalicyclic is a 3 to 7 membered mono cyclic ring which may contain from 1 to 2 heteroatoms in the ring skeleton and which may be fused to a benzene or pyridine ring;

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D is selected from the group consisting of (C_{1-6}) alkyl and (C_{2-6}) alkenyl; wherein said (C_{1-6}) alkyl and (C_{2-6}) alkenyl are optionally substituted with one to three same or different halogens or from one to three same or different substituents selected from the group consisting of $C(O)NR^{55}R^{56}$, hydroxy, cyano and XR^{57} ;

E is selected from the group consisting of (C₁₋₆)alkyl and (C₂₋₆)alkenyl; wherein said (C₁₋₆)alkyl and (C₂₋₆)alkenyl are independently optionally substituted with a member selected from the group consisting of phenyl, heteroaryl, SMe, SPh, -C(O)NR₅₆R₅₇, C(O)R₅₇, SO₂(C₁₋₆)alkyl and SO₂Ph; wherein heteroaryl is a monocyclic system which contains from 3 to 7 ring atoms, including from 1 to 4 heteroatoms;

F is selected from the group consisting of (C_{1-6}) alkyl, (C_{3-7}) cycloalkyl, aryl, heteroaryl, heteroalicyclic, hydroxy, (C₁₋₆)alkoxy, aryloxy, (C₁₋₆)thioalkoxy, cyano, halogen, nitro, $-C(O)R^{57}$, benzyl, $-NR^{42}C(O)-(C_{1-6})$ alkyl, $-NR^{42}C(O)-(C_{1-6})$ 10 (C₃₋₆)cycloalkyl, -NR⁴²C(O)-aryl, -NR⁴²C(O)-heteroaryl, -NR⁴²C(O)-heteroalicyclic, a 4, 5, or 6 membered ring cyclic N-lactam, -NR⁴²S(O)₂-(C₁₋₆)alkyl, -NR⁴²S(O)₂-(C₃₋₆)cycloalkyl, -NR⁴²S(O)2-aryl, -NR⁴²S(O)₂-heteroaryl, -NR⁴²S(O)2heteroalicyclic, $S(O)_2(C_{1-6})$ alkyl, $S(O)_2$ aryl, $-S(O)_2 NR^{42}R^{43}$, $NR^{42}R^{43}$, (C₁₋₆)alkylC(O)NR⁴²R⁴³, C(O)NR⁴²R⁴³, NHC(O)NR⁴²R⁴³, OC(O)NR⁴²R⁴³, 15 NHC(O)OR⁵⁴, (C₁₋₆)alkylNR⁴²R⁴³, COOR⁵⁴ and (C₁₋₆)alkylCOOR⁵⁴; wherein said (C_{1-6}) alkyl, (C_{3-7}) cycloalkyl, aryl, heteroaryl, heteroalicyclic, (C_{1-6}) alkoxy, and aryloxy, are optionally substituted with one to nine same or different halogens or from one to five same or different substituents selected from the group G; wherein aryl is phenyl; heteroaryl is a monocyclic system which contains from 3 to 7 ring 20 atoms, including from 1 to 4 heteroatoms; heteroalicyclic is selected from the group consisting of aziridine, azetidine, pyrrolidine, piperazine, piperidine, tetrahydrofuran, tetrahydropyran, azepine, and morpholine;

G is selected from the group consisting of (C₁₋₆)alkyl, (C₃₋₇)cycloalkyl, aryl, heteroaryl, heteroalicyclic, hydroxy, (C₁₋₆)alkoxy, aryloxy, cyano, halogen, nitro, -C(O)R⁵⁷, benzyl, -NR⁴⁸C(O)-(C₁₋₆)alkyl, -NR⁴⁸C(O)-(C₃₋₆)cycloalkyl, -NR⁴⁸C(O)-aryl, -NR⁴⁸C(O)-heteroaryl, -NR⁴⁸C(O)-heteroalicyclic, a 4, 5, or 6 membered ring cyclic N-lactam, -NR⁴⁸S(O)₂-(C₁₋₆)alkyl, -NR⁴⁸S(O)₂(C₃₋₆)cycloalkyl, -NR⁴⁸S(O)2-aryl, -NR⁴⁸S(O)₂-heteroaryl, -NR⁴⁸S(O)2-heteroalicyclic, sulfinyl, sulfonyl, sulfonamide, NR⁴⁸R⁴⁹, (C₁₋₆)alkyl C(O)NR⁴⁸R⁴⁹, C(O)NR⁴⁸R⁴⁹, NHC(O)NR⁴⁸R⁴⁹, OC(O)NR⁴⁸R⁴⁹, NHC(O)OR⁵⁴,

(C₁₋₆)alkylNR⁴⁸R⁴⁹, COOR⁵⁴, and (C₁₋₆)alkylCOOR⁵⁴; wherein aryl is phenyl; heteroaryl is a monocyclic system which contains from 3 to 7 ring atoms, including from 1 to 4 heteroatoms; heteroalicyclic is selected from the group consisting of aziridine, azetidine, pyrrolidine, piperazine, piperidine, tetrahydrofuran, tetrahydropyran, azepine, and morpholine;

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R⁷ is selected from the group consisting of aryl, heteroaryl, and heteroalicyclic; wherein said aryl, heteroaryl, and heteroalicyclic are optionally substituted with one to three same or different halogens or with from one to three same or different substituents selected from the group F;

wherein for R⁷, R⁸, R^{8a}, R^{8b} aryl is phenyl; heteroaryl is a mono or bicyclic system which contains from 3 to 7 ring atoms for mono cyclic systems and up to 10 atoms in a bicyclic system, including from 1 to 4 heteroatoms; wherein heteroalicyclic is selected from the group consisting of aziridine, azetidine, pyrrolidine, piperazine, piperidine, tetrahydrofuran, tetrahydropyran, azepine, and morpholine;

R⁸ is selected from the group consisting of hydrogen, (C₁₋₆)alkyl, (C₃₋₇)cycloalkyl, (C₂₋₆)alkenyl, (C₃₋₇)cycloalkenyl, (C₂₋₆)alkynyl, aryl, heteroaryl, and heteroalicyclic; wherein said (C₁₋₆)alkyl, (C₃₋₇)cycloalkyl, (C₂₋₆)alkenyl, (C₃₋₇)cycloalkenyl, (C₂₋₆)alkynyl, aryl, heteroaryl, and heteroalicyclic are optionally substituted with one to six same or different halogens or from one to five same or different substituents selected from the group F;

- R^{8a} is a member selected from the group consisting of aryl, heteroaryl, and heteroalicyclic; wherein each member is independently optionally substituted with one to six same or different halogens or from one to five same or different substituents selected from the group F;
- 30 R^{8b} is selected from the group consisting of hydrogen, (C_{1-6}) alkyl and phenyl;

 R^9 , R^{10} , R^{11} , R^{12} , R^{13} , R^{14} , R^{15} , R^{16} , are each independently selected from the group consisting of hydrogen and (C_{1-6}) alkyl; wherein said (C_{1-6}) alkyl is optionally substituted with one to three same or different halogens;

5 X is selected from the group consisting of NH or NCH₃, O, and S;

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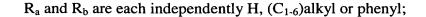
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R⁴⁰ and R⁴¹ are independently selected from the group consisting of

(a) hydrogen; (b) (C₁₋₆)alkyl or (C₃₋₇)cycloalkyl substituted with one to three same or different halogens or from one to two same or different substituents selected from the group F; and (c) (C₁₋₆)alkoxy, aryl, heteroaryl or heteroalicyclic; or R⁴⁰ and R⁴¹ taken together with the nitrogen to which they are attached form a member selected from the group consisting of aziridine, azetidine, pyrrolidine, piperazine, 4-NMe piperazine, piperidine, azepine, and morpholine; and wherein said aryl, heteroaryl, and heteroalicyclic are optionally substituted with one to three same or different halogens or from one to two same or different substituents selected from the group F; wherein for R⁴⁰ and R⁴¹ aryl is phenyl; heteroaryl is a monocyclic system which contains from 3 to 6 ring atoms, including from 1 to 4 heteroatoms; heteroalicyclic is selected from the group consisting of aziridine, azetidine, pyrrolidine, piperazine, piperidine, tetrahydrofuran, tetrahydropyran, azepine, and morpholine; provided when B is C(O)NR⁴⁰R⁴¹, at least one of R⁴⁰ and R⁴¹ is not selected from groups (a) or (b);

R⁴² and R⁴³ are independently selected from the group consisting of hydrogen, (C₁₋₆)alkyl, allyl, (C₁₋₆)alkoxy, (C₃₋₇)cycloalkyl, aryl, heteroaryl and heteroalicyclic; or R⁴² and R⁴³ taken together with the nitrogen to which they are attached form a member selected from the group consisting of aziridine, azetidine, pyrrolidine, piperazine, 4-NMe piperazine, piperidine, azepine, and morpholine; and wherein said (C₁₋₆)alkyl, (C₁₋₆)alkoxy, (C₃₋₇)cycloalkyl, aryl, heteroaryl, and heteroalicyclic are optionally substituted with one to three same or different halogens or from one to two same or different substituents selected from the group G; wherein for R⁴² and R⁴³ aryl is phenyl; heteroaryl is a monocyclic system which contains from 3 to 6 ring atoms, including from 1 to 4 heteroatoms; heteroalicyclic is a member selected from the group consisting of aziridine, azetidine, pyrrolidine, piperazine, piperidine, tetrahydrofuran, tetrahydropyran, azepine, and morpholine;



R⁴⁶ is selected from the group consisting of H, OR⁵⁷, and NR⁵⁵R⁵⁶;

- 5 R^{47} is selected from the group consisting of H, amino, halogen, phenyl, and (C_{1-6}) alkyl;
 - R^{48} and R^{49} are independently selected from the group consisting of hydrogen, $(C_{1\text{-}6})$ alkyl and phenyl;
 - R^{50} is selected from the group consisting of H, (C_{1-6}) alkyl, (C_{3-6}) cycloalkyl, and benzyl; wherein each of said (C_{1-6}) alkyl, (C_{3-7}) cycloalkyl and benzyl are optionally substituted with one to three same or different halogen, amino, OH, CN or NO₂;
- 15 R^{54} is selected from the group consisting of hydrogen and (C_{1-6}) alkyl;

$$R^{54'}$$
 is (C_{1-6}) alkyl;

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- R^{55} and R^{56} are independently selected from the group consisting of hydrogen and (C₁₋₆)alkyl; and
 - R^{57} is selected from the group consisting of hydrogen, (C_{1-6}) alkyl and phenyl.
- 2. A compound of claim 1, including pharmaceutically acceptable salts thereofwherein:
 - R¹ is hydrogen;
- 30 Q is either:

(a)
$$R_3$$
 R_4 R_5 R_1 or R_3 R_4 R_5

wherein R^2 is selected from the group consisting of hydrogen, halogen, hydroxy, $-O(C_{1-6})$ alkyl, cyano, nitro and XR^{57} ;

wherein R^3 is selected from the group consisting of hydrogen, halogen, hydroxy, $-O(C_{1-6})$ alkyl, cyano, $-COOR^{56}$, nitro, XR^{57} ; phenyl optionally substituted with one to three same or different halogens or one of methoxy, hydroxy or XR^{57} ; furyl, oxazolyl, or pyrazolyl, independently optionally substituted with halogen, methoxy, (C_{1-3}) alkyl or XR^{57} ; or

(b) Q is:

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$$R_2$$
 R_3
 R_4
 R_5

wherein R^2 and R^3 are independently selected from the group consisting of hydrogen, halogen, hydroxy, $-O(C_{1-6})$ alkyl, cyano, nitro, $-COOR^{56}$, XR^{57} , -C(O) $NR^{55}R^{56}$; phenyl optionally substituted with one to three same or different halogens or one of methoxy, hydroxy or XR^{57} ; furyl, oxalzolyl or pyrazolyl, independently optionally substituted with (C_{1-3}) alkyl, halogen, methoxy or XR^{57} ;

and for both (a) and (b):

m is 2;

25 R⁵ is hydrogen;

R⁶ does not exist;

A is selected from the group consisting of C_{1-6} alkoxy, aryl and heteroaryl; wherein said aryl is phenyl; heteroaryl is selected from the group consisting of pyridinyl, pyrimidinyl, pyrazinyl, triazinyl, furanyl, thienyl, pyrrolyl, imidazolyl, thiazolyl, oxazolyl and isoxazolyl; and said aryl or heteroaryl is optionally substituted with one or two of the same or different members selected from the group consisting of amino, cyano, hydroxy C_{1-6} alkoxy, C_{1-6} alkyl, -NHC(O)CH₃, halogen and trifluoromethyl;

- - represents a carbon-carbon bond;

10 X is NH or NC H_3 ;

 R^{57} is H or (C_{1-3}) alkyl; and

 R^{55} and R^{56} are independently H or (C_{1-6}) alkyl.

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3. A compound of claim 2, including pharmaceutically acceptable salts thereof, wherein:

A is selected from the group consisting of phenyl and heteroaryl; wherein heteroaryl is pyridinyl, furanyl or thienyl; and said phenyl or said heteroaryl is optionally substituted with one to two of the same or different amino, C_{1-6} alkyl, hydroxy, or halogen;

 R^9 , R^{10} , R^{11} , R^{12} , R^{13} , R^{14} , R^{15} and R^{16} are each independently hydrogen or methyl with the proviso that only one is methyl;

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Q is either:

(a)
$$R_6$$
 R_1 R_5 R_6 R_4 R_5 R_6 R_4 R_5

and then R² is selected from the group consisting of hydrogen, halogen and methoxy; and

R₃ is hydrogen; or

(b) Q is:

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and R² is halogen or hydrogen and R³ is hydrogen;

and for both (a) and (b):

 R^4 is selected from the group consisting of B;

B is selected from the group consisting of -C(O)NR⁴⁰R⁴¹, substituted phenyl, heteroaryl, oxazoline, pyrazinone and methylene dioxy or ethylene dioxy fused to a benzene or pyridine; wherein said heteroaryl or phenyl is optionally substituted with one to three same or different halogens or from one to two same or different substituents selected from the group F.

4. A compound of claim 3, including pharmaceutically acceptable salts thereof, wherein:

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B is selected from the group consisting of -C(O)NR⁴⁰R⁴¹, substituted phenyl and heteroaryl; wherein said phenyl is substituted and heteroaryl is optionally substituted with one to three same or different halogens or from one to two same or different substituents selected from the group F;

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F is selected from the group consisting of (C₁₋₆)alkyl, (C₃₋₆)cycloalkyl, aryl, heteroaryl, heteroalicyclic, hydroxy, (C₁₋₆)alkoxy, (C₁₋₆)thioalkoxy, cyano, halogen, -C(O)R⁵⁷, benzyl, -NR⁴²C(O)-(C₁₋₆)alkyl, -NR⁴²C(O)-(C₃₋₆)cycloalkyl, -NR⁴²C(O)-aryl, -NR⁴²C(O)-heteroaryl, -NR⁴²C(O)-heteroalicyclic, 4, 5, or 6 membered ring cyclic N-lactam, -NR⁴²S(O)₂-(C₁₋₆)alkyl, -NR⁴²R⁴³, C(O)NR⁴²R⁴³ and COOR⁵⁴; wherein said (C₁₋₆)alkyl, (C₃₋₆)cycloalkyl, aryl, heteroaryl, heteroalicyclic,

 (C_{1-6}) alkoxy, are optionally substituted with one to three same or different halogens or from one to two same or different substituents selected from the group G;

G is selected from the group consisting of (C₁₋₆)alkyl, hydroxy, (C₁₋₆)alkoxy,

halogen, -NR⁴⁸C(O)-(C₁₋₆)alkyl, -NR⁴⁸C(O)-(C₃)cycloalkyl, 4, 5, or 6 membered ring cyclic N-lactam, -NR⁴⁸S(O)₂-(C₁₋₆)alkyl, NR⁴⁸R⁴⁹, (C₁₋₆)alkyl C(O)NR⁴⁸R⁴⁹,

C(O)NR⁴⁸R⁴⁹ and (C₁₋₆)alkylNR⁴⁸R⁴⁹;

R⁴⁰ is hydrogen; and

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 R^{41} is selected from the group consisting of (C_{1-6}) alkyl, (C_{3-7}) cycloalkyl, phenyl and heteroaryl; wherein said (C_{1-6}) alkyl, (C_{3-7}) cycloalkyl, phenyl, or heteroaryl are substituted with one to three same or different halogens or one to two same or different substituents selected from the group consisting of methyl, (C_{1-3}) alkoxy,

heteroaryl and aryl; wherein said aryl or heteroaryl are optionally substituted with one to three same or different halogens or from one to two same or different substituents selected from the group consisting of (C_{1-6}) alkyl, hydroxy, (C_{1-6}) alkoxy, $-NR^{42}C(O)$ - (C_{1-6}) alkyl, $NR^{42}R^{43}$ and $C(O)NR^{42}R^{43}$.

20 5. A compound of claim 4, including pharmaceutically acceptable salts thereof, wherein:

Q is

$$\mathbb{R}_{4}$$

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A is Phenyl, 2-pyridyl, or 3-pyridyl;

B is selected from the group consisting of -C(O)NR⁴⁰R⁴¹ or heteroaryl; wherein said heteroaryl is optionally substituted with one to three same or different halogens or from one to two same or different substituents selected from the group F.

5 6. A compound of claim 5, including pharmaceutically acceptable salts thereof, wherein:

B is heteroaryl, wherein said heteroaryl is optionally substituted with one to three same or different halogens or from one to two same or different substituents selected from the group F.

7. A compound of claim 4, including pharmaceutically acceptable salts thereof, wherein:

15 Q is

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$$\bigcap_{N \to \mathbb{R}_4}^{\mathbb{R}_2}$$

R² is selected from the group consisting of hydrogen, halogen, and methoxy;

20 R^4 is B;

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B is selected from the group consisting of $-C(O)NR^{40}R^{41}$ or heteroaryl; wherein said heteroaryl is optionally substituted with one to three same or different halogens or from one to two same or different substituents selected from the group F;

8. A compound of claim 7, including pharmaceutically acceptable salts thereof, wherein:

A is phenyl, 2-pyridyl, or 3-pyridyl.

9. A compound of claim 8 including pharmaceutically acceptable salts thereof, wherein:

B is
$$-C(O)NR^{40}R^{41}$$
.

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10. A compound of claim 8 including pharmaceutically acceptable salts thereof, wherein:

B is heteroaryl, wherein said heteroaryl is optionally substituted with one to three same or different halogens or from one to two same or different substituents selected from the group F.

- 11. A compound of claim 4 wherein:
- F is selected from the group consisting of (C₁₋₆)alkyl, (C₃₋₆)cycloalkyl (C₁₋₆)alkoxy, hydroxy, heteroaryl, heteroalicyclic, methoxy, -S(C₁₋₃)alkyl, halogen, -C(O)R⁵⁷, C(O)NR⁴²R⁴³, -NR⁴²C(O)-(C₁₋₆)alkyl, -NR⁴²C(O)-(C₃₋₆)cycloalkyl, -NR⁴²C(O)-aryl, -NR⁴²C(O)-heteroaryl, -NR⁴²C(O)-heteroalicyclic, 4, 5, or 6 membered ring cyclic N-lactam, -NR⁴²S(O)₂-(C₁₋₆)alkyl, -NR⁴²S(O)₂-(C₃₋₆)cycloalkyl, -NR⁴²S(O)₂-aryl, -NR⁴²S(O)₂-heteroaryl, -NR⁴²S(O)₂-heteroalicyclic, NR⁴²R⁴³, NR⁵⁵(C₁₋₃)alkylNR⁵⁵R⁵⁶ and COOR⁵⁴.
 - 12. A compound of claim 11 wherein:
- 25 A is phenyl, 2-pyridyl, or 3-pyridyl.
 - 13. A compound of claim 4, including pharmaceutically acceptable salts thereof, wherein:

Q is

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$$R_3$$
 R_4 R_4

R² is selected from the group consisting of hydrogen and methoxy;

R³ is hydrogen; and

- B is selected from the group consisting of -C(O)NR⁴⁰R⁴¹ and heteroaryl; wherein said heteroaryl is optionally substituted with one to three same or different halogens or from one to two same or different substituents selected from the group F.
 - 14. A compound of claim 8 wherein R^2 is fluoro.

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- 15. A compound of claim 8 wherein R^2 is methoxy.
- 16. A compound of claim 8 wherein:
- B is heteroaryl selected from the group consisting of thiazole, pyridazine, pyrazine, pyrazole, isoxazole, isothiazole, imidazole, furyl, thienyl, oxazole, oxadiazole, thiadiazole, pyrimidine, pyrazole, triazine, triazole, tetrazole, pyridyl, indole, azaindole, and diaza-indole; wherein said heteroaryl is optionally substituted with one to three same or different halogens or from one to two same or different substituents selected from the group F.
 - 17. A compound of claim 5 wherein:
- B is heteroaryl selected from the group consisting of thiazole, pyridazine, pyrazine,
 pyrazole, isoxazole, isothiazole, imidazole, furyl, thienyl, oxazole, oxadiazole,
 thiadiazole, pyrimidine, pyrazole, triazine, triazole, tetrazole, pyridyl, indole,
 azaindole, and diaza-indole; wherein said heteroaryl is optionally substituted with one
 to three same or different halogens or from one to two same or different substituents
 selected from the group F.

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18. A compound of claim 13 wherein:

B is heteroaryl selected from the group consisting of thiazole, pyridazine, pyrazine, pyrazole, isoxazole, isothiazole, imidazole, furyl, thienyl, oxazole, oxadiazole, thiadiazole, pyrimidine, pyrazole, triazine, triazole, tetrazole, pyridyl, indole, azaindole, and diaza-indole; wherein said heteroaryl is optionally substituted with one to three same or different halogens or from one to two same or different substituents selected from the group F.

19. A compound of claim 7 wherein:

B is heteroaryl selected from the group consisting of thiazole, pyridazine, pyrazine, pyrazole, isoxazole, isothiazole, imidazole, furyl, thienyl, oxazole, oxadiazole, thiadiazole, pyrimidine, pyrazole, triazine, triazole, tetrazole, pyridyl, indole, azaindole, and diaza-indole; wherein said heteroaryl is optionally substituted with one to three same or different halogens or from one to two same or different substituents selected from the group F.

20. A compound of claim 6 wherein:

B is heteroaryl optionally substituted with one to three same or different halogens or a substituent selected from the group consisting of hydroxy, C₁-C₆ alkyl, C₁-C₆ alkoxy, C₁-C₃ thioalkoxy, amino, -C(O)H, -COOH, -COOC₁-C₆ alkyl, -NHC(O)-(C₁-C₆ alkyl), -NHS(O)₂-(C₁-C₆ alkyl), -C(O)-NH₂, C(O)NHMe, C(O)NMe2, trifluoromethyl, -NR⁵⁵R⁵⁶, NR⁵⁵R⁵⁶-(C₁-C₆ alkyl)-NR⁵⁵R⁵⁶, -thiazole, pyrrole, piperazine, pyrrolidine and N-pyrrolidone.

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21. A compound of claim 7 wherein:

B is -C(O)NH-heteroaryl wherein said heteroaryl is optionally substituted with one to three same or different halogens or a substituent selected from the group consisting of (C₁-C₆ alkyl), amino, -NHC(O)-(C₁-C₆ alkyl), -methoxy, -NHC(C₁-C₆ alkyl) and -N(C₁-C₆ alkyl)₂.

22. A compound of claim 10 wherein:

B is heteroaryl optionally substituted with one to three same or different halogens or a substituent selected from the group consisting of $(C_1-C_6 \text{ alkyl})$, amino, -NHC(O)-

5 (C₁-C₆ alkyl), -NHS(O)₂-(C₁-C₆ alkyl), methoxy, -C(O)-NH₂, C(O)NHMe, C(O)NMe2, trifluoromethyl, -NHC(C₁-C₆ alkyl), -N(C₁-C₆ alkyl)₂, -heteroaryl and a 4, 5, or 6 membered cyclic N-lactam.

23. A compound of claim 9 wherein:

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B is -C(O)NH-heteroaryl wherein said heteroaryl is optionally substituted with one to three same or different halogens or a substituent selected from the group consisting of $(C_1-C_6 \text{ alkyl})$, amino, $-NHC(O)-(C_1-C_6 \text{ alkyl})$, -methoxy, $-NHC(C_1-C_6 \text{ alkyl})$ and $-N(C_1-C_6 \text{ alkyl})_2$.

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24. A compound of claim 16 wherein:

B is heteroaryl optionally substituted with one to three same or different halogens or a substituent selected from the group consisting of hydroxy, C_1 - C_6 alkyl, C_1 - C_6 alkoxy,

20 C₁-C₃ thioalkoxy, amino, -C(O)H, -COOH, -COOC₁-C₆ alkyl, -NHC(O)-(C₁-C₆ alkyl), -NHS(O)₂-(C₁-C₆ alkyl), methoxy, -C(O)-NH₂, C(O)NHMe, C(O)NMe2, trifluoromethyl, -NR⁵⁵R⁵⁶, NR⁵⁵R⁵⁶-(C₁-C₆ alkyl)-NR⁵⁵R⁵⁶, -thiazole, pyrrole, piperazine, pyrrolidine and N-pyrrolidone.

25 25. A compound of claim 13 wherein:

B is -C(O)NH-heteroaryl wherein said heteroaryl is optionally substituted with one to three same or different halogens or a substituent selected from the group consisting of $(C_1-C_6 \text{ alkyl})$, amino, $-NHC(O)-(C_1-C_6 \text{ alkyl})$, -methoxy,

30 -NHC(C_1 - C_6 alkyl) and -N(C_1 - C_6 alkyl)₂.

26. A compound of claim 5 wherein:

B is thienyl.

- 27. A compound of claim 24 wherein:
- B is thienyl optionally substituted with one to three same or different halogens or a substituent selected from the group consisting of hydroxy, C₁-C₆ alkyl, C₁-C₆ alkoxy, C₁-C₃ thioalkoxy, amino, -C(O)H, -COOH, -COOC₁-C₆ alkyl, -NHC(O)-(C₁-C₆ alkyl), -NHS(O)₂-(C₁-C₆ alkyl), -C(O)-NH₂, C(O)NHMe, C(O)NMe2, trifluoromethyl, -NR⁵⁵R⁵⁶, NR⁵⁵R⁵⁶-(C₁-C₆ alkyl)-NR⁵⁵R⁵⁶, heteroaryl, piperazine, pyrrolidine, N-pyrrolidone and trifluoromethyl.
 - 28. A compound of claim 10 wherein:

B is thienyl.

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29. A compound of claim 27 wherein:

B is thienyl optionally substituted with one to three same or different halogens or a substituent selected from the group consisting of hydroxy, C₁-C₆ alkyl, amino, -NHC(O)-(C₁-C₆ alkyl), -C(O)-NH₂, C(O)NHMe, C(O)NMe₂ and -NR⁵⁵R⁵⁶.

30. A compound of claim 10 wherein:

B is thienyl optionally substituted with one to three same or different halogens or a substituent selected from the group consisting of hydroxy, C₁-C₆ alkyl, C₁-C₆ alkoxy, C₁-C₃ thioalkoxy, amino, -C(O)H, -COOH, -COOC₁-C₆ alkyl, -NHC(O)-(C₁-C₆ alkyl), -NHS(O)₂-(C₁-C₆ alkyl), methoxy, -C(O)-NH₂, C(O)NHMe, C(O)NMe2, trifluoromethyl, -NR⁵⁵R⁵⁶, NR⁵⁵R⁵⁶-(C₁-C₆ alkyl)-NR⁵⁵R⁵⁶, heteroaryl, piperazine, pyrrolidine, N-pyrrolidone and trifluoromethyl.

30

31. A compound of claim 16 wherein:

B is heteroaryl selected from the group consisting of thiazole, pyridazine, pyrazine, pyrazole, isoxazole, isothiazole, imidazole, furyl, thienyl, oxazole, oxadiazole, thiadiazole, pyrimidine, pyrazole, triazine, triazole, tetrazole and pyridyl; wherein said heteroaryl is optionally substituted with one to three same or different halogens or a substituent selected from the group F consisting of hydroxy, C₁-C₆ alkyl, C₁-C₆ alkoxy, C₁-C₃ thioalkoxy, amino, -C(O)H, -COOH, -COOC₁-C₆ alkyl, -NHC(O)-(C₁-C₆ alkyl), -NHS(O)₂-(C₁-C₆ alkyl), methoxy, -C(O)-NH₂, C(O)NHMe, C(O)NMe2, trifluoromethyl, -NR⁵⁵R⁵⁶, NR⁵⁵R⁵⁶-(C₁-C₆ alkyl)-NR⁵⁵R⁵⁶, heteroaryl, piperazine, pyrrolidine, N-pyrrolidone and trifluoromethyl.

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32. A compound of claim 17 wherein:

B is heteroaryl selected from the group consisting of thiazole, pyridazine, pyrazine, pyrazole, isoxazole, isothiazole, imidazole, furyl, thienyl, oxazole, oxadiazole, thiadiazole, pyrimidine, pyrazole, triazine, triazole, tetrazole and pyridyl; wherein said heteroaryl is optionally substituted with one to three same or different halogens or a substituent selected from the group F consisting of hydroxy, C₁-C₆ alkyl, C₁-C₆ alkoxy, C₁-C₃ thioalkoxy, amino, -C(O)H, -COOH, -COOC₁-C₆ alkyl, -NHC(O)-(C₁-C₆ alkyl), -NHS(O)₂-(C₁-C₆ alkyl), methoxy, -C(O)-NH₂, C(O)NHMe, C(O)NMe2, trifluoromethyl, -NR⁵⁵R⁵⁶, NR⁵⁵R⁵⁶-(C₁-C₆ alkyl)-NR⁵⁵R⁵⁶, heteroaryl, piperazine, pyrrolidine, N-pyrrolidone and trifluoromethyl.

33. A compound of claim 18 wherein:

B is heteroaryl selected from the group consisting of thiazole, pyridazine, pyrazine, pyrazole, isoxazole, isothiazole, imidazole, furyl, thienyl, oxazole, oxadiazole, thiadiazole, pyrimidine, pyrazole, triazine, triazole, tetrazole and pyridyl; wherein said heteroaryl is optionally substituted with one to three same or different halogens or a substituent selected from the group F consisting of hydroxy, C₁-C₆ alkyl,
C₁-C₆ alkoxy, C₁-C₃ thioalkoxy, amino, -C(O)H, -COOH, -COOC₁-C₆ alkyl, -NHC(O)-(C₁-C₆ alkyl), -NHS(O)₂-(C₁-C₆ alkyl), methoxy, -C(O)-NH₂, C(O)NHMe, C(O)NMe₂, trifluoromethyl, -NR⁵⁵R⁵⁶, NR⁵⁵R⁵⁶.

 $(C_1-C_6 \text{ alkyl})-NR^{55}R^{56}$, heteroaryl, piperazine, pyrrolidine, N-pyrrolidone and trifluoromethyl.

- 34. A compound of claim 3 which is depicted in Table 2.
- 35. A compound of claim 3 which is depicted in Table 2-1.
- 36. A compound of claim 3 which is depicted in Table 3.
- 10 37. A compound of claim 3 which is depicted in Table 4.
 - 38. A compound of claim 3 which is depicted in Table 5.
 - 39. A compound of claim 1 wherein:

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A is selected from the group consisting of phenyl and heteroaryl; wherein heteroaryl is pyridinyl, furanyl or thienyl; wherein said phenyl or heteroaryl is independently optionally substituted with one to two of the same or different amino, C_{1-6} alkyl, or halogen;

20

- - represents a carbon-carbon bond;

R⁹, R¹⁰, R¹¹, R¹², R¹³, R¹⁴, R¹⁵, and R¹⁶ are each independently hydrogen or methyl, with the proviso that only zero, one, or two is methyl;

25

Q is either:

(a)
$$R_3$$
 R_2 R_1 ; R_4 R_5

30 R² is selected from the group consisting of hydrogen, halogen, and methoxy; and

R₃ is hydrogen; or

(b) Q is:

5

15

R² and R³ are hydrogen;

and for both (a) and (b):

 R^4 is selected from the group consisting of B;

B is heteroaryl selected from the group consisting of triazole, pyrazole, oxazole, pyrazine, pyrimidine and oxadiazole; wherein said heteroaryl is optionally substituted with one to three same or different halogens or from one to two same or different substituents selected from the group F;

F is selected from the group consisting of (C_{1-6}) alkyl, heteroaryl, -NR⁴²C(O)- (C_{1-6}) alkyl, -NR⁴²R⁴³ and C(O)NR⁴²R⁴³:

20 R⁵ is hydrogen;

R⁶ does not exist; and

 R^{42} and R^{43} are independently selected from the group consisting of hydrogen and (C_{1-6}) alkyl; or R^{42} and R^{43} taken together with the nitrogen to which they are attached form a heteroalicyclic selected from the group consisting of aziridine, azetidine, pyrrolidine, piperazine, tetrahydrofuran, tetrahydropyran, azepine and morpholine.

40. A compound of claim 39 wherein:

30

25

R² is H, Cl, F, or methoxy; and

R⁴ is selected from the group consisting of

$$\stackrel{\sim}{N}$$
 $\stackrel{\sim}{N}$ $\stackrel{\sim}$

5 41. A compound of claim 40 wherein:

R² is methoxy or fluoro; and

one of $R^9,\,R^{10},\,R^{11},\,R^{12},\,R^{13},\,R^{14},\,R^{15}$, or R^{16} is methyl and the others are hydrogen.

10

42. A compound of claim 40 wherein:

R² is methoxy; and

15
$$R^9$$
, R^{10} , R^{11} , R^{12} , R^{13} , R^{14} , R^{15} , and R^{16} are each hydrogen.

43. A compound of claim 41 wherein:

one of R^9 , R^{10} , R^{11} , R^{12} , R^{13} , R^{14} , R^{15} , or R^{16} is (R)-methyl and the others are hydrogen.

44. A compound of claim 41 wherein:

one of R^9 , R^{10} , R^{11} , R^{12} , R^{13} , R^{14} , R^{15} , or R^{16} is (S)-methyl and the others are hydrogen.

45. A compound of claim 39 wherein:

R² is methoxy, hydrogen, chloro, or fluoro; and

R⁴ is oxadiazole.

- 46. A compound of claim 54 wherein:
- 5 R² is methoxy, hydrogen, chloro or fluoro; and
 - R⁴ is oxadiazole substituted with a single fluoro, chloro, amino or methyl group.
- 47. A compound of claim 2, including pharmaceutically acceptable salts thereof, wherein:

A is selected from the group consisting of phenyl and heteroaryl; wherein said heteroaryl is pyridinyl, furanyl or thienyl; and said phenyl or said heteroaryl is optionally substituted with one to two of the same or different amino, C_{1-6} alkyl, hydroxy, or halogen;

R⁹, R¹⁰, R¹¹, R¹², R¹⁵, and R¹⁶ are each hydrogen;

R¹³ and R¹⁴ are each independently hydrogen or methyl with the proviso that only one is methyl;

Q is either:

15

(a)
$$R_{1}$$
 R_{2} R_{1} or R_{3} R_{4} R_{5} R_{5}

25 R² is selected from the group consisting of hydrogen, halogen and methoxy; and

R₃ is hydrogen; or

(b) Q is:

$$R_2$$
 R_3
 R_4
 R_5

and R² is halogen or hydrogen and R³ is hydrogen;

5 and for both (a) and (b):

20

R⁴ is selected from the group consisting of B; and

B is selected from the group consisting of -C(O)NR⁴⁰R⁴¹, substituted phenyl,

heteroaryl, oxazoline, pyrazinone, methylene dioxy or ethylene dioxy fused to a

benzene or pyridine; wherein said heteroaryl or phenyl is optionally substituted with

one to three same or different halogens or from one to two same or different
substituents selected from the group F.

15 48. A compound of claim 47, including pharmaceutically acceptable salts thereof, wherein:

B is selected from the group consisting of -C(O)NR⁴⁰R⁴¹, substituted phenyl and heteroaryl; wherein said phenyl is substituted and heteroaryl is optionally substituted with one to three same or different halogens or from one to two same or different substituents selected from the group F;

F is selected from the group consisting of (C₁₋₆)alkyl, (C₃₋₆)cycloalkyl, aryl, heteroaryl, heteroalicyclic, hydroxy, (C₁₋₆)alkoxy, (C₁₋₆)thioalkoxy, cyano, halogen, -C(O)R⁵⁷, benzyl, -NR⁴²C(O)-(C₁₋₆)alkyl, -NR⁴²C(O)-(C₃₋₆)cycloalkyl, -NR⁴²C(O)-aryl, -NR⁴²C(O)-heteroaryl, -NR⁴²C(O)-heteroalicyclic, 4, 5, or 6 membered ring cyclic N-lactam, -NR⁴²S(O)₂-(C₁₋₆)alkyl, -NR⁴²R⁴³, C(O)NR⁴²R⁴³ and COOR⁵⁴; wherein said (C₁₋₆)alkyl, (C₃₋₆)cycloalkyl, aryl, heteroaryl, heteroalicyclic, (C₁₋₆)alkoxy, are optionally substituted with one to three same or different halogens or from one to two same or different substituents selected from the group G;

G is selected from the group consisting of (C_{1-6}) alkyl, hydroxy, (C_{1-6}) alkoxy, halogen, -NR⁴⁸C(O)-(C₁₋₆)alkyl, -NR⁴⁸C(O)-(C₃)cycloalkyl, 4, 5, or 6 membered ring cyclic N-lactam, -NR⁴⁸S(O)₂-(C₁₋₆)alkyl, NR⁴⁸R⁴⁹, (C₁₋₆)alkyl C(O)NR⁴⁸R⁴⁹, C(O)NR⁴⁸R⁴⁹ and (C_{1-6}) alkylNR⁴⁸R⁴⁹;

5

10

R⁴⁰ is hydrogen;

 R^{41} is (C_{1-6}) alkyl, (C_{3-7}) cycloalkyl, phenyl, or heteroaryl; wherein said (C_{1-6}) alkyl, (C_{3-7}) cycloalkyl, phenyl, or heteroaryl are substituted with one to three same or different halogens or one to two same or different methyl, (C_{1-3}) alkoxy, heteroaryl or aryl; wherein said aryl or heteroaryl are optionally substituted with one to three same or different halogens or from one to two same or different substituents selected from the group consisting of (C_{1-6}) alkyl, hydroxy, (C_{1-6}) alkoxy, $-NR^{42}C(O)-(C_{1-6})$ alkyl, $NR^{42}R^{43}$ and $C(O)NR^{42}R^{43}$.

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49. A compound of claim 2, including pharmaceutically acceptable salts thereof, wherein:

A is selected from the group consisting of phenyl and heteroaryl; wherein heteroaryl is pyridinyl, furanyl or thienyl; and said phenyl or said heteroaryl is optionally substituted with one to two of the same or different amino, C₁₋₆alkyl, hydroxy, or halogen;

R⁹, R¹⁰, R¹¹, R¹², R¹³, R¹⁴, R¹⁵, and R¹⁶ are each independently hydrogen or methyl with the proviso that only one is methyl;

Q is either:

(a)
$$R_6$$
 R_2 R_1 or R_6 R_4 R_5 R_4 R_5

wherein R² is selected from the group consisting of hydrogen, halogen and methoxy; and

R₃ is hydrogen; or

5

(b) Q is:

$$R_2$$
 R_3
 R_4
 R_5

wherein R² is halogen or hydrogen; and R³ is hydrogen;

10

and for both (a) and (b):

R⁴ is selected from the group consisting of B;

B is selected from the group consisting of -C(O)NR⁴⁰R⁴¹, substituted phenyl, heteroaryl, oxazoline, pyrazinone, methylene dioxy or ethylene dioxy fused to a benzene or pyridine; wherein said heteroaryl or phenyl is optionally substituted with one to three same or different halogens or from one to two same or different substituents selected from the group F;

20

50. A compound of claim 49, including pharmaceutically acceptable salts thereof, wherein:

B is selected from the group consisting of pyrazinone and methylene dioxy or ethylene dioxy fused to a benzene ring; wherein said group is optionally substituted with one to three same or different halogens or a substituent selected from the group F consisting of (C₁-C₆ alkyl), amino, -NHC(O)-(C₁-C₆ alkyl), -NHS(O)₂-(C₁-C₆ alkyl), methoxy, -C(O)-NH₂, C(O)NHMe, C(O)NMe2, trifluoromethyl, -NHC(C₁-C₆ alkyl), -N(C₁-C₆ alkyl)₂, -heteroaryl and a 4, 5, or 6 membered cyclic N-lactam.

- 51. A compound of claim 49, including pharmaceutically acceptable salts thereof, wherein:
- B is selected from the group consisting of oxadiazole, triazole, pyrazole, pyrazine and pyrimidine; wherein said group is optionally substituted with one to three same or different halogens or a substituent selected from the group F consisting of (C₁-C₆ alkyl), amino, -NHC(O)-(C₁-C₆ alkyl), -NHS(O)₂-(C₁-C₆ alkyl), methoxy, -C(O)-NH₂, C(O)NHMe, C(O)NMe2, trifluoromethyl, -NHC(C₁-C₆ alkyl), -N(C₁-C₆ alkyl)₂, -heteroaryl, a 4, 5, or 6 membered cyclic N-lactam and (C₁₋₆)alkylNR⁴⁸R⁴⁹.
 - 52. A compound of claim 49, including pharmaceutically acceptable salts thereof, wherein:
- heteroaryl in B is selected from the group consisting of pyrazine and pyrimidine.
 - 53. A compound of claim 50, including pharmaceutically acceptable salts thereof, wherein:
- 20 heteroaryl in B is selected from the group consisting of pyrazine and pyrimidine.
 - 54. A compound of claim 1 wherein R⁹, R¹⁰, R¹⁵ and R¹⁶ are each hydrogen; and
- R¹¹, R¹², R¹³, and R¹⁴ are each independently hydrogen or methyl with the proviso that up to one can be methyl.
 - 55. A compound of claim 54, including pharmaceutically acceptable salts thereof, wherein one of R^{11} , R^{12} , R^{13} , and R^{14} is methyl.
- 30 56. A compound of claim 55, wherein the carbon atom of the piperazine ring to which the methyl group of R¹¹, R¹², R¹³, and R¹⁴ is attached has an (R) configuration.

- 57. A compound of claim 1 wherein R^{11} , R^{12} , R^{13} , and R^{14} are each hydrogen; and R^9 , R^{10} , R^{15} and R^{16} are each independently hydrogen or methyl with the proviso that up to one can be methyl.
- 5 58. A compound of claim 57, wherein one of R⁹, R¹⁰, R¹⁵ and R¹⁶ is methyl.
 - 59. A compound of claim 58, wherein the carbon atom of the piperazine ring to which the methyl group of R^9 , R^{10} , R^{15} and R^{16} is attached has an (R) configuration.
- 10 60. A compound of claim 1, including pharmaceutically acceptable salts thereof wherein:

R¹ is hydrogen;

15

m is 2;

R⁵ is hydrogen;

20 R⁶ does not exist;

A is selected from the group consisting of $C_{1\text{-}6}$ alkoxy, aryl and heteroaryl; wherein aryl is phenyl; heteroaryl is selected from the group consisting of pyridinyl, pyrimidinyl, pyrazinyl, triazinyl, furanyl, thienyl, pyrrolyl, imidazolyl, thiazolyl, oxazolyl and isoxazolyl; and said aryl or heteroaryl is optionally substituted with one or two of the same or different amino, cyano, hydroxy $C_{1\text{-}6}$ alkoxy, $C_{1\text{-}6}$ alkyl, -NHC(O)CH₃, halogen and trifluoromethyl; and

- - represents a carbon-carbon bond.

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61. A pharmaceutical formulation which comprises an antiviral effective amount of a compound of Formula I, including pharmaceutically acceptable salts thereof, as claimed in claim 1, and a pharmaceutically acceptable carrier.

- 62. The pharmaceutical formulation of claim 61, useful for treating infection by HIV, which additionally comprises an antiviral effective amount of an AIDS treatment agent selected from the group consisting of:
 - (a) an AIDS antiviral agent;
- 5 (b) an anti-infective agent;
 - (c) an immunomodulator; and
 - (d) HIV entry inhibitors.
- 63. A method for treating mammals infected with a virus, comprising

 10 administering to said mammal an antiviral effective amount of a compound of

 Formula I, including pharmaceutically acceptable salts thereof, as claimed in claim 1.
- 64. The method of claim 63, comprising administering to said mammal an antiviral effective amount of a compound of Formula I in combination with an
 15 antiviral effective amount of an AIDS treatment agent selected from the group consisting of: an AIDS antiviral agent; an anti-infective agent; an immunomodulator; and HIV entry inhibitors.
 - 65. The method of claim 63 wherein the virus is HIV.
- 20
- 66. The method of claim 64 wherein the virus is HIV.
- 67. A compound of claim 1 having the Formula Ia, including pharmaceutically acceptable salts thereof,

Ia

wherein:

5

R² is methoxy, fluoro or chloro;

R⁴ is selected from the group consisting of a 1,2,3-triazolyl group having the formula

10

a 1,2,4-triazolyl group having the formula

15

D is hydrogen or C_1 - C_3 alkyl;

E is selected from the group consisting of hydrogen, (C_1-C_3) alkyl, $O(C_1-C_3)$ alkyl and CH_2OCH_3 ; and

20

 R^{11} is either hydrogen or methyl in which the configuration to which the methyl is attached is (R); with the proviso that when R^4 is N, then R^{11} is hydrogen.

- 68. A compound of claim 67, including pharmaceutically acceptable salts thereof, wherein:
 - R² is methoxy or fluorine;

5

D is hydrogen or methyl; and

- 10 E is hydrogen, methyl or ethyl.
 - 69. A compound of claim 68, including pharmaceutically acceptable salts thereof, wherein:

15

R² is methoxy;

D is hydrogen or methyl; and

E is hydrogen, methyl or ethyl.

- 20 70. A compound of claim 69, including pharmaceutically acceptable salts thereof, wherein:
 - R¹¹ is hydrogen.

71. A compound of claim 70, including pharmaceutically acceptable salts thereof, wherein:

 $30 R^4$ is

25

$$H \nearrow N N$$
; and

R¹¹ is hydrogen.

5 72. A compound of claim 71, including pharmaceutically acceptable salts thereof, wherein:

D is hydrogen.

10

- 73. A compound of claim 71, including pharmaceutically acceptable salts thereof, wherein:
- 15 D is methyl.
 - 74. A compound of claim 70, including pharmaceutically acceptable salts thereof, wherein:

20

75. A compound of claim 74, including pharmaceutically acceptable salts thereof,25wherein:

E is hydrogen.

76. A compound of claim 74, including pharmaceutically acceptable salts thereof, wherein:

- 5 E is methyl.
 - 77. A compound of claim 74, including pharmaceutically acceptable salts thereof,

wherein:

10

E is ethyl.

- 78. A compound of claim 68, including pharmaceutically acceptable salts thereof,
- 15 wherein:

R² is fluoro;

D is hydrogen or methyl; and

E is hydrogen or methyl.

20

- 79. A compound of claim 78, including pharmaceutically acceptable salts thereof, wherein:
- $25 R^4 is$

$$H \nearrow N N$$
; and

R¹¹ is hydrogen.

30

80. A compound of claim 79, including pharmaceutically acceptable salts thereof,

wherein:

D is hydrogen.

5 81. A compound of claim 79, including pharmaceutically acceptable salts thereof,

wherein:

D is methyl.

10

82. A compound of claim 78, including pharmaceutically acceptable salts thereof, wherein:

 $15 R^4 is$

- 83. A compound of claim 82, including pharmaceutically acceptable salts thereof,
- wherein:

E is hydrogen.

84. A compound of claim 82, including pharmaceutically acceptable salts thereof,

25

wherein:

E is methyl.

30 85. A compound of claim 68, including pharmaceutically acceptable salts thereof,

wherein:

R² is methoxy;

D is hydrogen or methyl;

- 5 E is hydrogen, methyl or ethyl; and
 - R¹¹ is (R)-methyl.
 - 86. A compound of claim 85, including pharmaceutically acceptable salts thereof,
- 10 wherein:

R⁴ is

15

87. A compound of claim 86, including pharmaceutically acceptable salts thereof,

wherein:

- 20 E is hydrogen.
 - 88. A compound of claim 86, including pharmaceutically acceptable salts thereof,

wherein:

25

E is methyl.

89. A compound of claim 86, including pharmaceutically acceptable salts thereof, wherein:

30

E is ethyl.

- 90. A pharmaceutical formulation which comprises an antiviral effective amount of a compound of Formula Ia, including pharmaceutically acceptable salts thereof, as claimed in claim 67, and a pharmaceutically acceptable carrier.
- 5 91. The pharmaceutical formulation of claim 90, useful for treating infection by HIV, which additionally comprises an antiviral effective amount of an AIDS treatment agent selected from the group consisting of:
 - (a) an AIDS antiviral agent;
 - (b) an anti-infective agent;
- 10 (c) an immunomodulator; and
 - (d) HIV entry inhibitors.
- 92. A method for treating mammals infected with the HIV virus, comprising administering to said mammal an antiviral effective amount of a compound of
 Formula Ia, including pharmaceutically acceptable salts thereof, as claimed in claim 67.
- 93. The method of claim 92, comprising administering to said mammal an antiviral effective amount of a compound of Formula Ia in combination with an antiviral effective amount of an AIDS treatment agent selected from the group consisting of: an AIDS antiviral agent; an anti-infective agent; an immunomodulator; and HIV entry inhibitors.